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THE WORLD IS FULL of examples of accommodations that permit people with disabilities to perform specific tasks they might not otherwise be able to. Drivers with poor vision wear glasses or contacts, elevators mark the buttons in Braille, and voters with disabilities may be given assistance by the person of their choice.

Accommodations play an important role in educational settings, too, particularly for students whose disabilities interfere with performing *learning* tasks (such as reading a book, taking notes in class, or writing an essay) or *testing* tasks (such as getting through the items within the time limit or filling in the circles on a multiple-choice test). A critical part of teaching and assessing students with disabilities, then, is providing them with accommodations that support learning *and* that support their ability to show what they know and can do.

But what accommodations are appropriate for which students? How do accommodations affect students' learning and their performance on tests? This *Evidence for Education* addresses these and other questions and explores the research base in this area. Commentary from education professionals and examples from the field are included to highlight practical tools and

resources designed to help educators and families determine appropriate accommodations for students with disabilities.

The Big Picture: Expectations, Content, and Testing

Assessment in school is not a casual affair—not for the school, district, or state that must demonstrate adequate yearly progress (AYP) as part of public accountability and not for students working to meet high performance standards. More than ever before, students with disabilities are included in the high performance standards states establish and in the required testing they conduct. In fact, federal law mandates it. Both the Individuals with Disabilities Education Improvement Act (IDEA) of 2004 and No Child Left Behind (NCLB) call for students with disabilities to participate in the general education curriculum and in testing programs to the maximum extent possible for each student. Because of these laws, schools have become accountable in new and significant ways for the education of all students with disabilities.

Three critical elements come together in this new world of accountability. Schools must now carefully consider:

- What students with disabilities are studying. In the past—the recent past, in fact—many students with disabilities did not study the same curriculum as their peers without disabilities. This changed with the reauthorization of IDEA in 1997, which greatly emphasized the involvement of students with disabilities in the general education curriculum. IDEA 2004 has further strengthened this requirement.
- What students with disabilities are expected to know.
 Previously, performance standards for students
 with disabilities were not aligned with the standards
 established for those without disabilities. Now it's
 important that all students with disabilities be held to
 the highest possible academic standards. States have
 scrambled in recent years to introduce grade-level
 content standards into the curriculum for students
 with disabilities.

Federal Guidance for the Field

- Letter to the Chief State School Officers regarding inclusion of students with disabilities in state accountability programs.
 www.ed.gov/admins/lead/account/csso030204.
 html
- Guidance on developing modified achievement standards for certain students with disabilities. www.ed.gov/policy/speced/guid/nclb/ twopercent.doc
- Fact sheet on modified achievement standards. www.ed.gov/parents/needs/speced/twopercent. html
- Guidance on alternate achievement standards for students with the most significant cognitive disabilities.
 - www.ed.gov/policy/elsec/guid/altguidance.pdf
- Tool kit on teaching and assessing students with disabilities.
 www.osepideasthatwork.org/toolkit/index.asp

• How well students with disabilities are learning. Including students with disabilities in state and district assessments is not only required by NCLB and IDEA, it also is a logical and essential element in improving results for them. Without testing students, how will we know if they are actually learning what they need to know, or what they may still need to master?

Not surprisingly, what's becoming evident is that "raised expectations can lead to increased participation supported appropriately with individualized accommodations, improved instruction, and, thus, performance" (Ysseldyke et al., 2004, p. 91). Melissa Fincher, Assistant Director of Georgia's Department of Education's Testing Division, sums up the emerging reality this way:

Prior to IDEA and NCLB, students were not necessarily included to the fullest extent in instruction based on the curriculum or on grade-level content, or in assessments. Now, with both of these laws indicating that students have to be assessed—that *all* students have to be assessed and all students have the right to quality instruction on the same curriculum—we're seeing that, if we expose the kids to the curriculum, they can rise to the occasion.

The role that accommodations play in helping students "rise to the occasion"—both in the classroom and in testing situations—is the focus of this *Evidence for Education*. The plain truth is that disability can pose a serious challenge to learning and to demonstrating knowledge and abilities fully. Accommodations can help students overcome or minimize the barriers presented by their disabilities—which is why federal law requires their use when necessary (Elliott, Kratochwill, & Schulte, 1999; McDonnell, McLaughlin, & Morison, 1997; Pitoniak & Royer, 2001) and why the U.S. Department of Education has issued numerous policy guidances for the field. You'll find many such resources mentioned throughout this document, starting with those identified in the Federal Guidance box.









Deciding Which Accommodations a Student Needs

The Challenge for educators and families is to decide which accommodations will help students learn new skills and knowledge—and which will help them demonstrate what they've learned (Shriner & DeStefano, 2003). The Online Accommodations Bibliography at the National Center on Educational Outcomes (NCEO) is an excellent source of information on the range of possible accommodations (http://cehd.umn.edu/nceo/AccomStudies.htm) as well as the effects of various testing accommodations for students with disabilities. What accommodations are "allowable," however, may vary from state to state (see the sidebar "What Do States Allow?"). Moreover, what helps one student may not address another's needs at all. Decisions about accommodations must be made on an individualized basis, student by student.

Who's responsible for making such decisions for a given student? The team that develops that student's individualized education program (IEP), that's who—otherwise known as the IEP team. A thoughtful and customized IEP serves as the foundation for providing each student with a disability access to a free appropriate public education (FAPE), as required under federal legislation (IDEA, 2004a). The IEP team is also responsible for *listing* in the IEP all the accommodations to be provided to the student in the classroom and in statewide or districtwide testing.

When an IEP team gathers to decide whether or not a student needs accommodations in the classroom or in testing, team members must consider the specific strengths, challenges, and routines of that student. This will help the team determine which accommodations will support the student across a range of school situations and activities as well as help the student access instruction designed to meet educational standards established by the district and state. Further, the team must also know what types of accommodations their state or locale allows, especially in testing situations. Many states make a distinction between *standard* accommodations, those that don't alter the nature of what a test is designed to measure, and *nonstandard* accommodations, those with the potential to significantly change what is being tested (Thurlow & Wiener, 2000).

In the end, the team may determine that no accommodations are needed or that a combination of individualized accommodations is necessary to meet the student's specific needs. Students can also help inform these decisions by talking with the team about what works best for them (Thurlow, Thompson, Walz, & Shin, 2001). Involving students in the process of determining goals and respecting their voices about which accommodations might best help them achieve those goals recognizes them as valued participants and can ultimately lead to feelings of increased control and responsibility in their education.

When taken alone, accommodations themselves may not result in much of an impact, but when thoughtfully integrated with other components in the IEP and implemented in the classroom, they can help students reach and demonstrate their full potential (Fletcher et al., 2006). It is also important to note that accommodations are most

What Do States Allow?

IDEA 2004 mandates that all students with disabilities participate in statewide and districtwide testing "with appropriate accommodations and alternate assessments where necessary and as indicated in their respective individualized education programs" (IDEA, 2004b).

As part of implementing this requirement, state education agencies have been working to establish policies to guide IEP teams and schools in making accommodation decisions for students with disabilities, especially with respect to their participation in large-scale testing programs and the types of accommodations that are allowed.

The National Center on Educational Outcomes (NCEO) has been tracking and analyzing these state policies since 1992 and reports that considerable



variability exists from state to state (and even within states and individual schools) in the ways in which accommodations are selected and applied, making it imperative that IEP teams know their current state and local accommodation policies. Fortunately, an increasing number of documents, training manuals, and guidelines are available online for teams to consult (Lazarus, Thurlow, Lail, Eisenbraun, & Kato, 2006).

You can find out more about accommodations in your state by visiting:

The National Center on Educational Outcomes (NCEO), at: http://cehd.umn.edu/nceo/TopicAreas/Accommodations/StatesAccomm.htm

The Education Commission of the States (ECS), at:

www.ecs.org/html/lssueSection.asp?issue id=I2&subissueid=32&ssID=0&s=What+States+Are+Doing

Your state education agency's website, identified on NICHCY's state resource sheets, at:

www.nichcy.org/states.htm



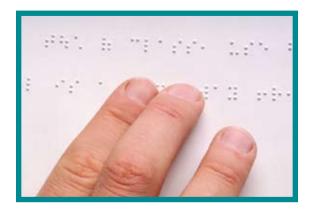
effective when they are based on individual strengths and needs rather than disability type (American Educational Research Association, American Psychological Association, & National Council on Measurement in Education, 1999). Further, accommodations chosen for testing situations can be most effective when they are adopted as an integral part of day-to-day instruction, to ensure that students have ample opportunity to practice their use prior to a mandated testing situation. This sentiment is reflected in the comment from Dr. Lynn Boyer, Executive Director of West Virginia's Office of Special Education, "There certainly is an expectation that the accommodations that are used on our state assessment are also used daily in the classroom. You would not have a student introduced for the first time to a scribe, for instance, or a calculator on a state assessment, when such an accommodation has not been used during instruction."

Types of Accommodations

THERE ARE MANY ways in which accommodations can be used to support students with disabilities in the classroom and when they are taking a mandated state or district assessment.

Accommodations in Presentation affect the way directions and content are delivered to students. Students with visual, hearing, and learning disabilities are much more able to engage in the content when it is presented in a form they can understand. Some examples of accommodations in presentation include:

- Oral reading (either by an adult or on audiotape)
- Large print
- · Magnification devices
- · Sign language
- Braille and Nemeth Code (a specific type of Braille used for math and science notations)





- Tactile graphics (e.g., 3-D topographical maps, 2-D raised line drawings)
- Manipulatives (e.g., geometric solids, real coins and currency, abacus)
- Audio amplification devices (e.g., hearing aids)
- · Screen reader

(Adapted from Special Connections, 2005b)¹

Accommodations in Response offer different ways for students to respond to assessment questions. They help students with visual and hearing impairments, physical disabilities, and organizational problems to structure, monitor, or directly put words to paper. Examples of these accommodations include:

- Using a computer/typewriter or a scribe to record answers (directly or through tape recorder)
- Using an augmentative communication device or other assistive technology (AT)
- Using a brailler
- Responding directly in the test booklet rather than on an answer sheet
- Using organizational devices, including calculation devices, spelling and grammar assistive devices, visual organizers, or graphic organizers

(Adapted from Special Connections, 2005c)

Accommodations in Setting affect either where a test is taken or the way in which the environment is set up. Changing the environment is especially helpful to students who are easily distracted. Some examples include:

- Administering the test individually (e.g., to the student alone)
- Testing in a separate room
- Testing in a small group
- Adjusting the lighting

¹ Categorizing accommodations into the well-known categories of presentation, response, timing/scheduling, and setting appears in Cortiella, C. (2005). NCLB: Determining appropriate assessment accommodations for students with disabilities. New York: National Center for Learning Disabilities. Available online at: http://cehd.umn.edu/nceo/OnlinePubs/NCLD/Accommodations.pdf



 Providing noise buffers such as headphones, earphones, or earplugs

(Adapted from Special Connections, 2005d)

Accommodations in Timing/Scheduling allow flexibility in the timing of an assessment. Generally, these are chosen for students who may need more time to process information or need breaks throughout the testing process to regroup and refocus. Timing/scheduling accommodations include:

- · Extended time
- Multiple or frequent breaks
- Change in testing schedule or order of subjects
- Testing over multiple days

(Adapted from Special Connections, 2005e)

When determining accommodations, particular attention should be paid to ensure that they do not give one student an unfair advantage over another, or alter or compromise the test's ability to assess particular knowledge or skills. For example, providing a test in Braille to a student with a significant visual impairment would not seem to provide an unfair advantage over a sighted peer participating in a standard administration



of the test. Having an adult read aloud questions on a math assessment may not necessarily alter the math concepts being assessed, but having the same adult read aloud on a test of reading comprehension does have the effect of changing the assessment from one of reading comprehension to one of listening comprehension and, in effect, results in the assessment of a different skill altogether.

How is the IEP team to judge whether an accommodation represents an unfair advantage for a student or is going to inappropriately alter the nature of the test? Conventional wisdom holds that, if nondisabled students also make gains when given the same accommodation (e.g., extra time on a test) as students with disabilities, then there are questions about fairness and integrity in the testing situation (Sireci, Li, & Scarpati, 2003). As researchers and policy makers continue to wrestle with these complex issues, IEP teams will need to stay current as policies and recommended practices evolve.

Choosing and Using Accommodations: IEP Team Considerations

The questions below are brought to you by Special Connections (2005a) at the University of Kansas and are designed to serve as a tool to help the IEP team discuss and determine what accommodations a student needs in the classroom or in assessment. Visit Special Connections at: www.specialconnections.ku.edu

- What kinds of instructional strategies (e.g., visual, tactile, auditory, combination) work best for the student?
- What learning strategies will help the student overcome challenges?
- What accommodations increase the student's access to instruction and assessment?
- What accommodations has the student tried in the past?
- What has worked well and in what situations?
- What does the student prefer?
- Are there ways to improve the student's use of the accommodation?
- Does the student still need the accommodation?
- What are the challenges of providing the student's preferred accommodations and how can these be overcome?
- Are there other accommodations that the student should try?
- Are there ways the student can use preferred accommodations outside of school (e.g., at home, on the job, in the community)?
- Are preferred accommodations allowed on state and district assessments of accountability?
- How can the student learn to request preferred accommodations (e.g., self-advocacy)?
- Are there opportunities for the student to use preferred accommodations on practice tests?
- What arrangements need to be made to make sure the student's preferred accommodations are available in assessment situations?
- How can actual use of accommodations be documented?



Other Helpful Resources for IEP Teams

All in all, despite a fairly large research base, the high degree of contradictory and inconclusive findings offer little in the way of solid guidance for educators who must make decisions about accommodations that will support their students. Nonetheless, a number of useful tools have been developed that recognize the challenges and significance of choosing appropriate accommodations. The list below is by no means comprehensive but may provide practical guidance to those seeking help in this area.²

Accommodations Manual: How to Select, Administer, and Evaluate Use of Accommodations for Instruction and Assessment of Students with Disabilities.

www.osepideasthatwork.org/toolkit/accommodations_manual.asp

The title of this comprehensive guide says it all. It includes informative fact sheets and practical teacher tools.

Special Topic Area: Accommodations for Students with Disabilities.

http://cehd.umn.edu/NCEO/TopicAreas/Accommodations/Accomtopic.htm

The National Center on Educational Outcomes (NCEO) answers frequently asked questions about testing accommodations for students with disabilities, connects you with state policies and state research in this area, and offers an impressive number of research-based publications to guide policy and decision making.

Online Accommodations Bibliography. http://cehd.umn.edu/nceo/AccomStudies.htm

Courtesy of NCEO, search and find both the range of possible accommodations and what empirical research studies have to say about the effects of various testing accommodations for students with disabilities.

Putting it All Together: Including Students with Disabilities in Assessment and Accountability Systems.

http://cehd.umn.edu/NCEO/Online Pubs/Policy I 6.htm

This is just one of many informative publications from NCEO related to the participation of students with disabilities in large-scale assessments.

Assessment Accommodations Guide (AAG). www.ctb.com/

Developed by Stephen Elliott and others at the Wisconsin Center for Education Research, this practical tool groups 74 common accommodations into eight different categories (e.g., motivation, scheduling, directions, adaptive technology). Educators can rate potential usefulness of various accommodations based on their knowledge of individual student needs. Published by CTB/McGraw-Hill.

Dynamic Assessment of Test Accommodations (DATA). http://harcourtassessment.com

Developed by Lynn Fuchs and others at Vanderbilt University, DATA is an attempt to establish a standardized approach for choosing valid accommodations for students. Published by Harcourt Assessment.

² Please note that resources provided here are for informational purposes only. NICHCY does not specifically endorse any of these over other resources that may not be included here. Readers are encouraged to explore these and other relevant resources to determine which are most helpful. Find a resource that works for you? Let us know about it at nichcy@aed.org



What Does the Research Say?

Looking to the research evidence, unfortunately, does not provide definitive answers to guide thoughtful policy and practice in this area (Chiu & Pearson, 1999; Johnstone, Altman, Thurlow, & Thompson, 2006; Koenig & Bachman, 2004; Sireci et al., 2003; Tindal & Fuchs, 1999; Thompson, Blount, & Thurlow, 2002). Considering the very real implications related to the use of accommodations and their extensive application across testing environments, the lack of conclusive direction from the research base is both disappointing and frustrating. That is not to say that a long look at the research base cannot be instructive. In fact, doing just that can lead to a better understanding of the complexities at play, for both researchers and practitioners alike, and more informed decision making about accommodations may indeed follow.

What we do know is that research has been able to suggest the following:

- Accommodation policies vary considerably from state to state. Interestingly, 12 states even extend eligibility for accommodations to all students (Clapper, Morse, Lazarus, Thompson, & Thurlow, 2005).
- Approximately two-thirds of special education students have been afforded accommodations in statewide assessments, the most common being extended time, alternative setting, and/or read-aloud accommodations (Bolt & Thurlow, 2004).
- Accommodations affect test scores for students with disabilities, lowering scores in some cases, raising scores in most others (Chiu & Pearson, 1999; Elliott et al., 1999; Elliott, Kratochwill, & McKevitt, 2001; Kettler et al., 2005; McKevitt, 2000; Koenig & Bachman, 2004; Schulte, Elliott, & Kratochwill, 2001; Tindal, Heath, Hollenbeck, Almond, & Harniss, 1998). Lowered scores appear to result when accommodations are poorly matched to student need or when the student has not had sufficient opportunity to practice using an accommodation in day-today settings prior to the testing situation.
- The use of read-aloud accommodations on assessments of mathematics for students with low reading skills and the use of Braille for blind students were found to be the most effective accommodations in a meta-analytic synthesis by Tindal & Fuchs (1999).

However, because of inconclusive and contradictory findings, we *cannot* automatically say with confidence that accommodations provide an accurate picture of a student's ability (Koenig & Bachman, 2004; Sireci et al., 2003; Thompson et al., 2002). Introducing an unfamiliar accommodation for the first time during a required testing situation may not necessarily help a student who has not had the opportunity to practice its use. Similarly, while providing a one-on-one administration of a test to a student with severe attention problems may help to reduce some distractible elements, it may not necessarily remove them all.

Neither can we automatically say with confidence that scores obtained by students with disabilities in accommodated situations can always be compared fairly to scores obtained by nondisabled students in unaccommodated situations (Elliott et al., 2001; Fuchs & Fuchs, 1999; Koenig & Bachman, 2004; McKevitt, 2000; McKevitt & Elliott, 2001; Tindal & Fuchs, 1999; Zuriff, 2000).

These last two points in particular make the important task of choosing appropriate accommodations for individual students all the more challenging. Students with disabilities bring an extremely broad range of strengths and weaknesses with them to testing environments. It is quite possible, in fact, for two students with very similar disabilities to require very different accommodations. Teacher training and

practical guidance in selecting appropriate accommodations for individual students would clearly go a long way toward improving and informing decision making, but the availability of these valuable commodities can vary even in the same district or school (Helwig & Tindal, 2003; Hollenbeck, Tindal, & Almond, 1998; McDonnell et al., 1997; McKevitt &



Elliott, 2001; Tindal & Fuchs, 2000).

What to do? First, it's good to know that there are readily available tools and resources. To connect you quickly with these, we've provided "Choosing and Using Accommodations: IEP Team Considerations" on page 5 and "Other Helpful Resources for IEP Teams" on page 6. Second, it's important for states (and districts) to make targeted and sustained professional development available to strengthen professional skill and judgment in this area. Many states are already doing this. In discussing Connecticut's approach to professional

Assessment Accommodations in Action

Samantha was diagnosed with cerebral palsy at birth. Her parents put walking independently on the top of their goal list for her, but she has some learning and speech/language disabilities as well. At 12 years old, she can walk with braces, but only for short periods of time. Her handwriting is hard to read, and her breathing problems make her hard to understand. She uses simplified sign to speak when others are unable to understand her. She also uses a keyboard in her classroom work or has an assistant who transcribes for her.

Samantha's past performance on the state assessment shows improvement over the years, but she is not performing at the same level as her classmates without disabilities. Since most of her classroom work is done with a word processor, and Samantha has demonstrated success in using it, her IEP team decides she will use it during the state assessment. The team also chooses extra time because Samantha's physical and learning

disabilities affect the speed at which she processes and responds to information.

During the assessment, Samantha is calm and confident. She works slowly and carefully to make her responses. Samantha takes at least an extra half hour to complete most of the assessment and walks out saying, "I aced it" to her teacher. Samantha's parents call her teacher and thank her for the support. It was a really positive, confidence-building experience for Samantha, they explain.

When the results arrive, the IEP team meets and discusses them. Samantha's results show that she learned much of the curriculum, although she does not have complete mastery. She did show progress from the year before, and this is what her parents focus on when they share the results with Samantha. When discussing the next steps, she asks to have some activities to do over the summer so she really can "ace" the assessment the following year.



development, for instance, Susan Kennedy, Education Manager of the state's NCLB Office, comments, "We talk about the theory that drives providing accommodations and the purpose of providing them. Some teachers think that they're doing it so the students will score better. We try to get across to them that we're trying to level the playing field." Melissa Fincher, Assistant Director of Georgia's Department of Education's Testing Division, explains that Georgia educators follow a "five-step process that helps IEP teams through a decision-making process, making sure that the right kids get the right accommodations."

There is a concern that some accommodations are overused, with teachers simply checking off a long list of accommodations they think might help improve a student's scores. Finch mentions that professional development opportunities in her state are mindful of this tendency, saying, "We want to provide some guidance about how to really match up the kids' needs with the right accommodations so that



you're facilitating the students showing what they know in the best way possible...that's something that we'll work on in getting teachers to really be specific about the accommodations and make sure that they match very closely to the student's disability."

What About Alternate Assessments?

ALTERNATE ASSESSMENTS ARE DESIGNED to evaluate the progress of students who are unable to participate in regular assessments, even with accommodations. For many students with disabilities, alternate assessments are the only appropriate way to evaluate how much they know, have learned, or can do. The IDEA requires that this alternative be available to students who need it, as decided by their IEP teams.

When an IEP team determines that a statewide or districtwide assessment is not appropriate for a specific student, they must include in that student's IEP:

- An explanation as to why the regular general assessment is not appropriate for the student, and
- A description of how the student will be assessed instead.

While an important topic in its own right, alternate assessments are beyond the scope of this Evidence for Education. However, not to leave you in the lurch, should information on this topic be appropriate to your student, we would like to refer you to the following resources on alternate assessment.

- Raising Achievement: Alternate Assessments for Students with Disabilities. www.ed.gov/policy/elsec/ guid/raising/alt-assess-long.html
 - This guidance from the U.S. Department of Education discusses the use of assessments for students with the most severe cognitive impairments and reviews federal requirements under NCLB and IDEA 2004.
- The National Alternate Assessment Center.
 www.naacpartners.org/Default.aspx
 The Center offers comprehensive information and technical assistance on the design and administration of high-quality alternate assessments.
- Alternate Assessments Frequently Asked Questions. www.osepideasthatwork.org/parentkit/ AltAssessFAQ.asp

This FAQ is available as part of the OSEP Ideas That Work Toolkit

- Assessment and Accountability Comprehensive Center (AACC). www.aacompcenter.org/cs/aacc/ print/htdocs/aacc/home.htm
 The Center offers a national perspective on
 - research-based resources and access to established collections of effective models, processes, research syntheses, toolkits, software systems, products, and strategies to fulfill specific state assessment and accountability needs.
- See also the "Federal Guidance" box on page 2.

The Value of Progress Monitoring

ASSESSMENT INFORMS PARENTS, students, school staff, community members, and policy makers of just how well students are doing. When appropriately applied, it can also help teachers make decisions about what strategies to use to address the needs of their students with disabilities. When teachers use information collected regularly within their own classrooms, they are able to make adjustments to their instruction and help students succeed.

Progress monitoring is a research-based strategy that measures student achievement through the use of targeted instruction and frequent (e.g., weekly, monthly) assessment of academic performance. Based on the information collected, teachers can chart a student's progress toward his or her individual goals and make adjustments when necessary—including adjustments to instructional approaches and to the number and types



Progress Monitoring in Action

Juan is a 9-year-old boy from El Salvador who has lived in the United States since he was 3. At the age of 6, he was identified as having a learning disability.

Juan has been in a fully inclusive classroom since he began school. While Juan has never been a good student, the death of his father two years ago has had an enormous impact on his schoolwork. Since then, he's had a very hard time focusing in school, which has led him to fall even further behind in his academics.

Juan's IEP team is worried, but suspects that they may not have an accurate picture of what Juan knows and can do. He may struggle with memory and reading, but he can tell you all about the movie or the sports game he saw last weekend. This leads the IEP team (which includes Juan's mother and school personnel directly involved with Juan) to consider how the testing situation might be adjusted to better support Juan in demonstrating his learning. Team members carefully review what they see as causing Juan trouble. They talk about his tendency to get frustrated when he has to sit and work on a task for extended periods of time and how quickly he turns to socializing with friends. He also gets confused when he has to process and organize a lot of text.

His IEP team decides to provide him with a thoughtfully chosen combination of accommodations that will help him show what he knows. Since reading is the primary area in which Juan's learning disability manifests itself, it is also the primary area in which Juan receives special education services and participates in assessments to track his progress. These reading assessments have been conducted every week since the beginning of the year and typically require Juan to remember sight words and to read a story and retell it. Knowing this, the IEP team indicates in Juan's

IEP that he will now participate in small groups for shorter periods of time and that assessments will be conducted the same way. They also decide that instructions will be read to him and he will be able to read aloud to himself.

They agree to provide this accommodation in classwork, so that Juan can become fully familiar with using it. The team will closely monitor the effects of these accommodations, to see if they actually support his learning.

When the year began, Juan could only remember the end of a story and recognize 20 sight words. Although his teachers focused instruction on reading of sight words and comprehension skills, in the next months Juan



appeared to be making little progress. This changed after the IEP team met and decided on accommodations that would better address Juan's instructional needs and help him show what he really knows when being assessed. Last month, his sight vocabulary was measured at 50 words, and he could retell the entire story he read.

Both Juan and his mother talk about how much he enjoys his weekly reading assessments. He tells his teachers that he is having fun, and his mother says that he enjoys reading with his friends. He feels successful and doesn't express frustration with the assessments.

of accommodations used (Quenemoen, Thurlow, Moen, Thompson, & Blount Morse, 2004). Not insignificantly, such regular student assessment also allows teachers to pinpoint when a student is having difficulty (National Center on Student Progress Monitoring, n.d.).

Assessment strategies in progress monitoring can take many forms, as the box on the next page shows, including: curriculum-based measurement (CBM), classroom assessments (system- or teacher-developed), adaptive assessments, and large-scale assessments (including state and districtwide assessments).

Progress monitoring is especially useful with students who have difficulty showing what they know in typical assessments. When the accommodations specified in each student's IEP are consistently provided, progress monitoring allows a real view of what skills and

knowledge a student has (National Center on Student Progress Monitoring, n.d.). IEP teams and educators can then use the information from these assessments to ensure that students are taught in a way that meets their needs and helps them address their academic goals.

Continual progress monitoring also helps to determine whether or not a selected accommodation is having the desired effect. "Too often we assign accommodations, but we don't evaluate whether they help the student or not," states Melissa Fincher, Assistant Director of Georgia's Department of Education's Testing Division. Susan Kennedy, Education Manager of Connecticut's NCLB Office, agrees, adding that teachers "should be keeping track of what's helpful, what's not helpful, and have that be the basis of their determination about whether they're going to use it on the test." Lynn Holland, of Georgia's



Forms of Assessment in Progress Monitoring ³

Curriculum-Based Measurement (CBM): tests based on specific areas of curriculum such as reading or math that are designed to be easy to administer frequently throughout the school year. Tests are of short duration and are given and scored in the same way each time, with a focus on direct and repeated measures of student performance.

Classroom assessments: teacher- or publisherdeveloped tests that assess mastery of specific skills or content knowledge and provide feedback that can be used to inform instruction.

Adaptive assessments: tests that use the student's ongoing performance on the test to determine the next items to which the student will respond. This approach can be implemented without computers, but works best with them. Use of computers improves testing precision because instant item scoring lets the computer exclude tasks that are too easy or too hard for a student and focus only on reasonably challenging tasks.

Large-scale assessments: standardized, large-scale (district and/or statewide) tests that are usually administered one to three times per year to show growth over time, and thus to monitor student progress, both individually and collectively for accountability purposes.

³ Quenemoen, R., Thurlow, M., Moen, R., Thompson, S. & Morse, A. B. (2003). Progress monitoring in an inclusive standards-based assessment and accountability system (NCEO Synthesis Report 53). Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes. Available online at http://cehd.umn.edu/nceo/OnlinePubs/Synthesis53. html and as part of the Office of Special Education Programs (OSEP)'s Toolkit on Teaching and Assessing Students with Disabilities, at www. osepideasthatwork.org/toolkit/ta_progress_mon_b.asp

Department of Education's Division for Exceptional Students, adds, "We do try to talk with teachers, through their directors usually, in thinking through and keeping data on what accommodations are actually producing results."

The National Center on Student Progress Monitoring offers a wide variety of resources to help educators build progress monitoring systems in their classrooms and schools. The *Review of Progress Monitoring Tools* (www.studentprogress.org/chart/chart.asp), for example, helps teachers make decisions about which assessments to use.

Assessments are evaluated along a number of important dimensions, including:

- Reliability and validity
- Alternate forms
- Sensitivity to student improvement
- · AYP benchmarks
- Improving student learning or teaching
- · Rates of improvement

Fundamentally, progress monitoring works when teachers use it regularly to reflect on how well instruction is supporting each student's needs. "Progress monitoring in a standards-based system can be the key to unlocking powerful skills and knowledge for teachers and students and can result in success for the school, district, and state in an inclusive standards-based assessment and accountability system" (Quenemon et al., 2004, p. 16).

Conclusion

THE GOAL OF SCHOOL is learning. Assessments are just one way—albeit a very important way—in which we find out whether students have learned or not. For many students, especially those with disabilities, being able to show what's been learned is greatly improved when teachers provide individualized instruction and appropriate accommodations in the classroom and in testing situations.

The sheer variety of accommodations and assessments allows IEP teams a range of tools by which to understand and maximize student ability. Progress monitoring along the way adds an extra and powerful tool for continually checking on student growth and adjusting instruction to match student need. Carefully selecting accommodations to address student strengths, challenges, and experiences means that students with disabilities have the supports they need to access classroom instruction and then demonstrate what they've learned.

Investigating and providing strategies such as accommodations that support student success can have obviously beneficial results for students, which is reason enough to provide them—plus it's the law—but they can be beneficial for our schools as well. Schools and educational systems as a whole are accountable for the results they achieve and must demonstrate that their students are learning. As Dr. Lynn Boyer sees it, "You really try with all these options—including accommodations that allow children to demonstrate what they know, to not only get more accurate test scores, but also to help children learn." Providing students with disabilities with the tools necessary for success in the classroom and to show their knowledge and skills in a regular assessment format means that they are truly included in the world of education.



References

- American Educational Research Association, American Psychological Association, and National Council on Measurement in Education. (1999). Standards for educational and psychological testing. Washington DC: Authors.
- Bolt, S.E., & Thurlow, M.L. (2004). Five of the most frequently allowed testing accommodations in state policy. *Remedial and Special Education*, 25(3), 141-152.
- Chiu, D.W.T., & Pearson, P.D. (1999, June). Synthesizing the effects of test accommodations for special education and limited English proficient students. Paper presented at the National Conference on Large-Scale Assessment, Snowbird, UT. (ERIC Document Reproduction Service No. ED433362)
- Clapper, A.T., Morse, A.B., Lazarus, S.S., Thompson, S.J., & Thurlow, M.L. (2005). 2003 state policies on assessment participation and accommodations for students with disabilities (Synthesis Report 56). Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes. Retrieved April 17, 2007, from http://education.umn.edu/NCEO/OnlinePubs/Synthesis56.html
- Cortiella, C. (2005). NCLB: Determining appropriate assessment accommodations for students with disabilities. New York: National Center for Learning Disabilities. Retrieved September 2, 2006, from http://cehd.umn.edu/nceo/OnlinePubs/NCLD/Accommodations.pdf
- Elliott, S.N., Kratochwill, T.R., & McKevitt, B.C. (2001). Experimental analysis of the effects of testing accommodations on the scores of students with and without disabilities. Journal of School Psychology, 39(1), 3-24.
- Elliott, S.N., Kratochwill, T.R., & Schulte, A.G. (1999). *Assessment accommodations guide*. Monterey, CA: CTB/McGraw Hill.
- Fletcher, J.M., Francis, D.J., Boudousquie, A., Copeland, K., Young, V., Kalinowski, S., & Vaughn, S. (2006). Effects of accommodations on high-stakes testing for students with reading disabilities. *Exceptional Children*, 72(2), 136-150.
- Fuchs, L.S., & Fuchs, D. (1999). Fair and unfair testing accommodations. *The School Administrator*, *10*(56), 24-29.
- Helwig, R., & Tindal, G. (2003). An experimental analysis of accommodation decisions on large-scale mathematics tests. *Exceptional Children*, 69(2), 211-225.
- Hollenbeck, K., Tindal, G., & Almond, P. (1998). Teachers' knowledge of accommodations as a validity issue in high-stakes testing. *Journal of Special Education*, *32*, 175-183.
- Individuals with Disabilities Education Improvement Act, 20 U.S.C. §§1412(a)(1) and 1414(d) (2004a).
- Individuals with Disabilities Education Improvement Act, 20 U.S.C. §§1412(a)(16)(A) (2004b).
- Johnstone, C.J., Altman, L., Thurlow, M., & Thompson, S. (2006). A summary of research on the effects of test accommodations: 2002 through 2004 (Tech. Rep. 45). Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes. Retrieved April 17, 2007, from http://education.umn.edu/nceo/OnlinePubs/Tech45/default.html
- Kettler, R.J., Niebling, B.C., Mroch, A.A., Feldman, E.S., Newell, M.L., Elliott, S.N., Kratchowill, T.R., & Bolt, D.M. (2005). Effects of testing accommodations on math and reading

- scores: An experimental analysis of the performance of students with and without disabilities. *Assessment for Effective Intervention*, 31(1), 37-48.
- Koenig, J.A., & Bachman, L.F. (Eds.). (2004). Keeping score for all: The effects of inclusion and accommodation policies on large-scale educational assessments. Washington, DC: National Academies Press.
- Lazarus, S.S., Thurlow, M.L., Lail, K.E., Eisenbraun, K.D., & Kato, K. (2006). 2005 state policies on assessment participation and accommodations for students with disabilities (Synthesis Report 64). Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes. Retrieved July 11, 2007, from http://education.umn.edu/NCEO/OnlinePubs/Synthesis64/
- McDonnell, L.M., McLaughlin, M.J., & Morison, P. (Eds.). (1997). Educating one and all: Students with disabilities and standards-based reform. Washington, DC: National Academies Press.
- McKevitt, B.C. (2000, June). The use and effects of testing accommodations on math and science performance assessments. Paper presented at the annual meeting of the Council of Chief State School Officers, Snowbird, UT.
- McKevitt, B.C., & Elliott, S. N. (2001). The effects and consequences of using testing accommodations on a standardized reading test. Madison, WI: University of Wisconsin.
- National Center on Student Progress Monitoring. (n.d.). *Common questions for progress monitoring*. Washington, DC: Author. Retrieved September 2, 2006, from http://www.studentprogress.org/progresmon.asp
- Pitoniak, M.J., & Royer, J.M. (2001). Testing accommodations for examinees with disabilities: A review of psychometric, legal, and social policy issues. *Review of Educational Research*, 71, 53-104.
- Quenemoen, R., Thurlow, M.L., Moen, R., Thompson, S., & Blount Morse, A. (2003). Progress monitoring in an inclusive standards-based assessment and accountability system (Synthesis Report 53). Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes. Retrieved September 2, 2006, from http://education.umn.edu/NCEO/OnlinePubs/Synthesis53.html
- Schulte, A.G., Elliott, S.N., & Kratochwill, T.R. (2001). Experimental analysis of the effects of testing accommodations on students' standardized achievement test scores. *School Psychology Review*, 30(4), 527-547.
- Shriner, J.G., & Destefano, L. (2003). Participation and accommodation in state assessment: The role of individualized education programs. *Exceptional Children*, 69(2), 147-161.
- Sireci S.G., Li, S., & Scarpati, S. (2003). The effects of test accommodation on test performance: A review of the literature (Research Report No. 485). Amherst, MA: University of Massachusetts Amherst, Center for Educational Assessment. Retrieved September 9, 2004, from http://www.education.umn.edu/NCEO/OnlinePubs/TestAccommLitReview.pdf
- Special Connections. (2005a). Choosing and using accommodations: IEP team considerations. Lawrence, KS: Special Connections, University of Kansas. Retrieved September 2, 2006, from http://www.specialconnections.ku.edu/cgi-bin/cgiwrap/specconn/main.php?cat=instruction§ion=main&subsection=ia/choosing

- Special Connections. (2005b). Presentation assessment accommodations. Lawrence, KS: Special Connections, University of Kansas. Retrieved September 2, 2006, from http://www.specialconnections.ku.edu/cgi-bin/cgiwrap/specconn/main.php?cat=assessment§ion=main&subsection=testaccomm/presentation
- Special Connections. (2005c). Response assessment accommodations. Lawrence, KS: Special Connections, University of Kansas. Retrieved September 2, 2006, from http://www.specialconnections.ku.edu/cgi-bin/cgiwrap/specconn/main.php?cat=assessment§ion=main&subsection=testaccomm/response
- Special Connections. (2005d). Setting assessment accommodations. Lawrence, KS: Special Connections, University of Kansas. Retrieved September 2, 2006, from http://www.specialconnections.ku.edu/cgi-bin/cgiwrap/specconn/main.php?cat=assessment§ion=main&subsection=testaccomm/setting
- Special Connections. (2005e). *Timing/scheduling assessment accommodations*. Lawrence, KS: Special Connections, University of Kansas. Retrieved September 2, 2006, from http://www.specialconnections.ku.edu/cgi-bin/cgiwrap/specconn/main.php?cat=assessment§ion=main&subsection=testaccomm/timing
- Thompson, S., Blount, A., & Thurlow, M. (2002). *A summary of research on the effects of test accommodations: 1999 through 2001* (Tech. Rep. 34). Minneapolis: University of Minnesota, National Center on Educational Outcomes. Retrieved March 28, 2003, from http://education.umn.edu/NCEO/OnlinePubs/Technical34.htm
- Thurlow, M.L., Thompson, S.J., Walz, L., & Shin, H. (2001). Student perspectives on using accommodations during statewide testing. University of Minnesota, National Center on Educational Outcomes. (ERIC Document Reproduction Service No. ED474766)
- Thurlow, M., & Wiener, D. (2000). Non-approved accommodations: Recommendations for use and reporting (Policy Directions No. 11). University of Minnesota, National Center on Educational Outcomes. Retrieved September 6, 2007, from http://education.umn.edu/NCEO/OnlinePubs/Policy11.htm
- Tindal, G., & Fuchs, L. (1999). A summary of research on testing accommodations: What we know so far. Lexington, KY: Mid-South Regional Resource Center.
- Tindal, G., & Fuchs, L. (2000). A summary of research on test changes: An empirical basis for defining accommodations. Lexington, KY: Mid-South Regional Resource Center.
- Tindal, G., Heath, B., Hollenbeck, K., Almond, P., & Harniss, M. (1998). Accommodating students with disabilities on large-scale tests: An experimental study. *Exceptional Children*, 64, 439-450.
- Ysseldyke, J., Nelson, J.R., Christenson, S., Johnson, D.R., Dennison, A., Triezenberg, H., Sharpe, M., & Hawes, M. (2004). What we know and need to know about the consequences of high-stakes testing for students with disabilities. *Exceptional Children*. 71(1), 75-95.
- Zuriff, G. E. (2000). Extra examination time for students with learning disabilities: An examination of the maximum potential thesis. *Applied Measurement in Education*, 13, 99-117.

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Sincere thanks to the following individuals for their considered review and feedback on this publication:

Judy Shanley, Ph.D., Project Officer, Office of Special Education Programs (OSEP), U.S. Department of Education Martha Thurlow, Ph.D., Director, National Center on Educational Outcomes, University of Minnesota Stephen Elliott, Ph.D., Professor and Dunn Family Chair in Educational and Psychological Assessment, Vanderbilt University

NICHCY would like to extend a very special thank you to the practitioners, administrators, and members of the NICHCY Sounding Board who contributed their time and wisdom to the creation and review of this publication.



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Publication of this document is made possible through Cooperative Agreement #H326N030003 between the Academy for Educational Development and the Office of Special Education Programs of the U.S. Department of Education. The contents of this document do not necessarily reflect the views or policies of the Department of Education, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

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